

AUTO438 Datasheet

EC79 APPROVED PRESSURE REGULATOR FOR HYDROGEN FUEL CELL BUSES AND TRUCKS

Gas
 Liquid
 Diaphragm
 Piston
 Self-Venting
 Non-Venting
 Max Inlet: 438 bar (6,350 psi)
 Max Outlet: 20 bar (290 psi)
 Cv 0.5



INTRODUCING THE AUTO438...

The AUTO438 is an EC79/2009 approved piston-sensed pressure regulator, designed specifically for hydrogen fuel cell buses and trucks. During the EC79 testing process, it was put through 90,000 cycles by external certification body, KIWA Nederland B.V. - equating to 10 years life time on a typical installation!

With a **balanced main valve** as standard, it offers stable control of outlet pressures up to 20 bar (290 psi) from a maximum 438 bar (6,350 psi) inlet pressure.

SPECIFICATION

| | |
|---------------------------|----------------------------------|
| Max. Rated Inlet Pressure | 438 bar (6,350 psi) |
| Outlet Ranges | Up to 20 bar (290 psi) |
| Design Proof Pressure | 150% max. working pressure |
| Seat Leakage | In accordance with ANSI/FCI 70-3 |
| Weight (Aluminium Body) | 1.8kg (3.97lbs) |

Note: Pressure regulator rating may be limited by connection type, Cv and/or seat material. Contact the office for specific pressure requirements.

STANDARD MATERIALS OF CONSTRUCTION

| PART | MATERIALS |
|----------------|--|
| Body | Anodised Aluminium T6511 (UNS AW6082) <i>Approx. Temperatures: -196°C to 200°C</i> |
| Main Valve Pin | ASTM A479 316/316L Stainless Steel (UNS S31600/S31603) <i>Approx. Temperatures: -196°C to 538°C</i> |
| Valve Spring | Elgiloy® (UNS R30003) <i>Approx. Temperatures: -196°C to 450°C</i> |
| Piston | ASTM A479 316/316L Stainless Steel |
| O-Rings | FKM/FPM 90 <i>Approx. Temperatures: -40°C to 85°C</i> |
| Loading Spring | ASTM A479 316/316L Stainless Steel |
| Filter | 30 Microns |

For the full list of material temperature ranges, please visit www.pressure-tech.com.

Note: Temperature details are provided as nominal values for guidance purposes only. No warranty is made, expressed or implied. Contact the office for specific temperature requirements.

FEATURES AND BENEFITS

1 EC79/2009 APPROVED

Permits use on hydrogen service for vehicles in the public domain.

2 EASY ACCESS TO SEAT CARTRIDGE

Simplified servicing through the base of the regulator.

3 IN-LINE LEAKAGE SENSE LINE

Easy to connect pipework to sense for H2 leakage, and makes set point anti-tamper proof.

4 BALANCED MAIN VALVE DESIGN

Improved control across the pressure range.

Product availability and specifications contained herein are subject to change without notice. Consult local distributor or factory for potential revisions and/or service related issues. Pressure Tech Ltd support with product selection recommendations only - it is the users responsibility to ensure the product is suitable for their specific application requirements.



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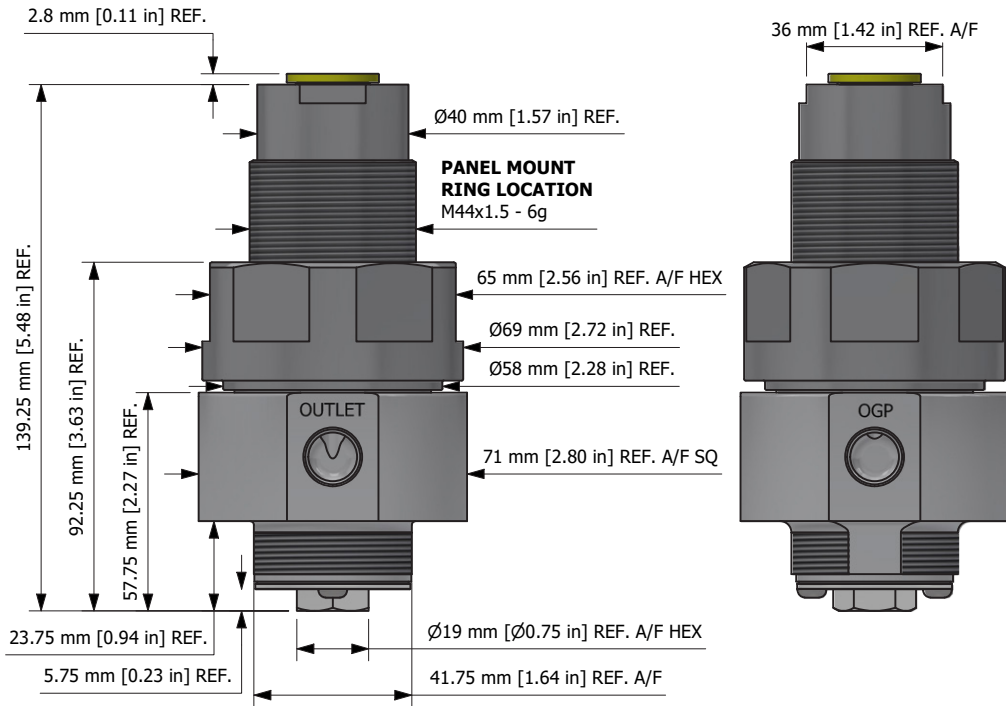
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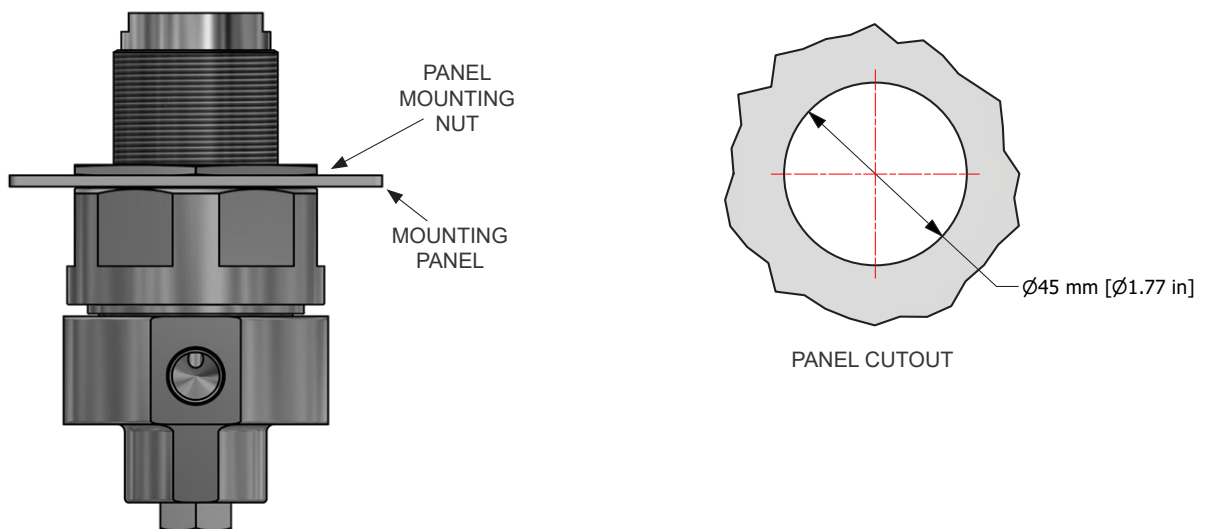
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DRAWINGS AND INSTALLATION DIMENSIONS



MOUNTING CONFIGURATION

Mounting panel is secured between the body and bonnet with a panel mounting nut.



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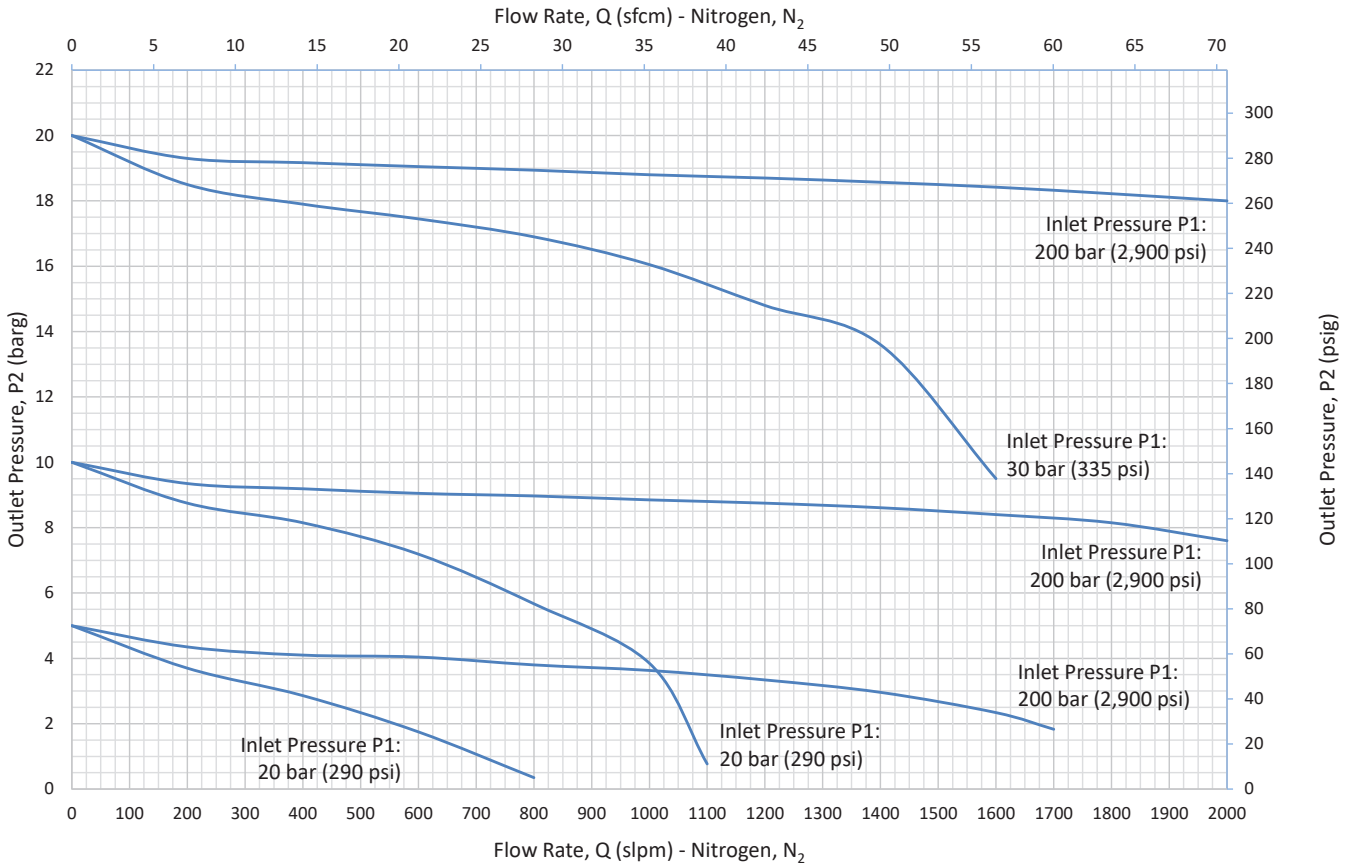
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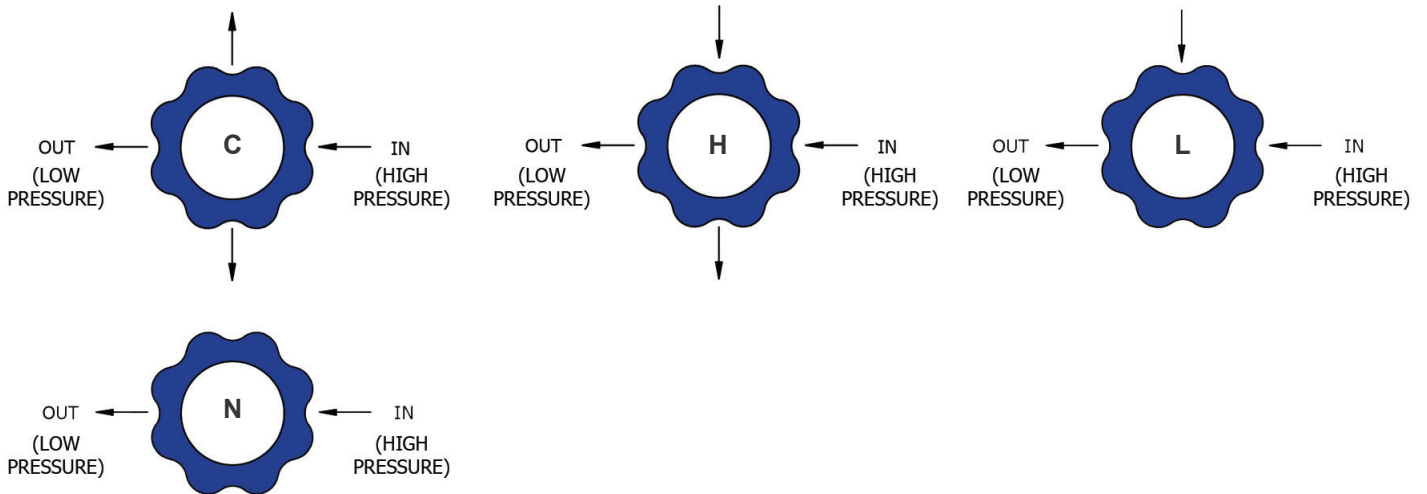
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FLOW CURVE



PORTING CONFIGURATIONS



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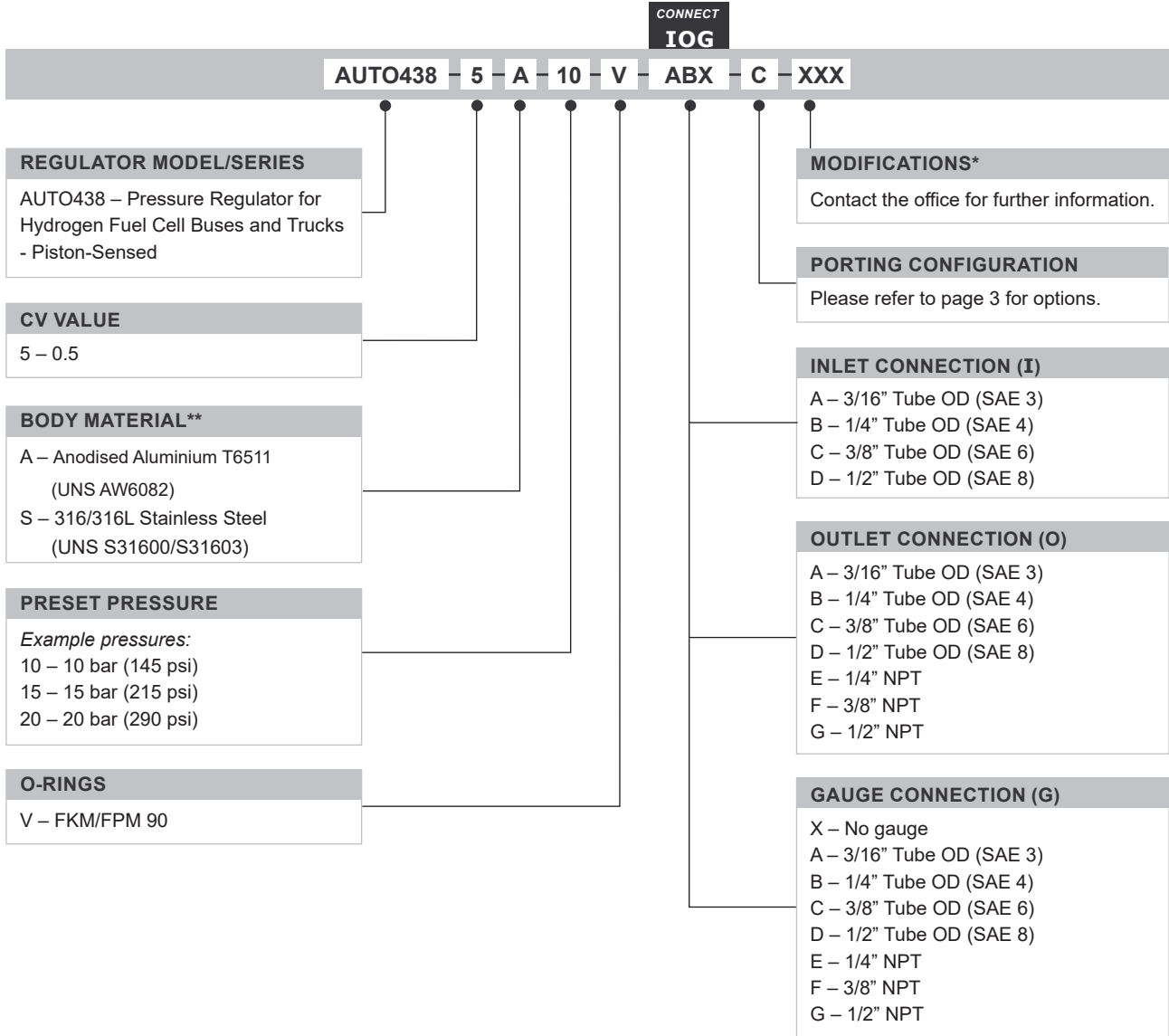
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ORDERING INFORMATION

To build a Pressure Tech part number, simply combine the characters identified below in sequence:



| OPTIONAL EXTRAS | | |
|-----------------|---------------------|--------------------------------------|
| | PART NUMBER | DESCRIPTION |
| Service Kit | SRK-AUTO438-05-B... | Various 'Balanced' options available |

Note: Ancillary equipment also available

TRADEMARKS: Elgiloy® is a registered trademark of Elgiloy Specialty Metals

* Where applicable

** Other options may be available - please contact the office

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